

SIT Graduate Institute/SIT Study Abroad

SIT Digital Collections

Independent Study Project (ISP) Collection

SIT Study Abroad

Spring 2019

My Body, Their Choice: Childbearing Attitudes and Practices in Jamkhed, Maharashtra

Sienna Sewell

Follow this and additional works at: https://digitalcollections.sit.edu/isp_collection



Part of the [Asian Studies Commons](#), [Family, Life Course, and Society Commons](#), [Gender and Sexuality Commons](#), [Maternal and Child Health Commons](#), [Medicine and Health Commons](#), [Obstetrics and Gynecology Commons](#), [Social and Cultural Anthropology Commons](#), and the [Women's Studies Commons](#)

My Body, Their Choice:

Childbearing Attitudes and Practices in Jamkhed, Maharashtra

Sienna Sewell

Academic Director: Dr. Azim Khan

ISP Advisor: Dr. Ravi Arole, Director of CRHP

SIT Study Abroad

India: Public Health, Gender, and Community Action

Spring 2019

Table of Contents

<i>Abstract.....</i>	<i>iii</i>
<i>Acknowledgements</i>	<i>iv</i>
<i>Acronyms</i>	<i>v</i>
<i>Introduction</i>	<i>1</i>
<i>Background.....</i>	<i>5</i>
Jamkhed and The Comprehensive Rural Health Project	5
Methodology.....	7
The Study Population	7
<i>Results</i>	<i>10</i>
Overview	10
A. Pregnancy	10
Family Planning.....	10
Prenatal Education and Care.....	13
Lifestyle Changes	15
Beliefs	16
Social Determinants of Decision-Making	17
Familial Influence.....	23
B. Delivery	26
Location	26
Who helps/attends?.....	27
Stress and Pain.....	28
Complications	29
<i>Subjective Analysis and Women’s Empowerment.....</i>	<i>31</i>
<i>Conclusions.....</i>	<i>33</i>
Interview Limitations	37
Recommendations for Further Engagement	39
<i>Bibliography</i>	<i>41</i>
<i>Appendix 1: Qualitative Questionnaire (English)</i>	<i>44</i>
<i>Appendix II: Quantitative Questionnaire (English) and Quantitative Data</i>	<i>45</i>

Abstract

Understanding the beliefs and practices of women and their families during pregnancy and childbirth is fundamental to the creation of successful public health interventions that target maternal and infant mortality. This study explores the childbearing practices of women in rural Jamkhed, as well as the social and economic factors that influence family planning, reproductive health-seeking, and delivery. Interviews and quantitative surveys were conducted with women in villages that have partnered with the Comprehensive Rural Health Project (CRHP) to examine how and why women access prenatal care during pregnancy. The influence of CRHP's "Jamkhed Model" on healthcare access is considered in conjunction with other socio-economic determinants of health through the lens of women's experiences during their childbearing years. Findings suggest that prenatal care is valued and utilized by the majority of childbearing women in the project villages, but that family hierarchies and social dynamics are important in determining the attitudes and practices of new mothers. The present study provides insight into reproductive health practices and motivations with the hope of understanding maternal health outcomes in the Jamkhed area.

Acknowledgements

These pages, and the culmination of this semester, are due to the support I received at every stage of this journey.

The hospitality of CRHP – My sincere thanks to Ravi Arole for serving as this project's mentor and for connecting me with everyone who would help me along the way. My profound gratitude goes to Surekha, who was my translator and one of the smartest women I have ever met. I am so appreciative of her patience during all those hours in the field and for still sitting down with me afterwards to debrief the day. A special thanks to Litany who welcomed us to CRHP. I'm thankful for the mobile health team and village health workers who sat with the SIT students for hours and gave us admiration for the depth and dedication of CRHP's partnerships. CRHP and the house-staff welcomed us and gave us a home for five weeks. My special thanks goes to the women who shared their experiences with me – I cannot thank you enough. Your openness and knowledge were the beginning, middle, and end of this paper and I am forever grateful for the opportunity to learn from you.

The wonderful facilitators at SIT – My sincere thanks to Azimji and Abidji, who provided the academic support for me as I conceptualized and finalized this project. A special thanks to Bhavnaji, Archanaji, and Goutamji for their constant love and care.

My homestay family – A big thank-you to Bobbyji, Vandanaji, and Kartik, who showed me some of the kindest hospitality and best food that I'd ever had.

My fellow students – Thank you all for your passion for public health and your support and solidarity during those challenging times. I'm glad we got to go on this adventure together.

Acronyms

ANC – Antenatal Care (see PNC)

ANM – Auxiliary Nurse Midwife

ASHA – Accredited Social Health Activist

CRHP – Comprehensive Rural Health Project

IFA – Iron and Folic Acid (Supplements)

JSSK – *Janani Shishu Suraksha Karyakaram*

JSY – *Janani Suraksha Yojana*

LBW – Low Birth Weight

MCH – Maternal and Child Health

MMR – Maternal Mortality Ratio

NGO – Non-governmental organization

NMBS – National Maternity Benefit Scheme

NRHM – National Rural Health Mission

PNC – Prenatal Care

RCH – Reproductive and Child Health

SDG – Sustainable Development Goals

VHW – Village Health Worker

Introduction

Maternal health is a key determinant of both the progress of a country's economic development and the efficacy of its social policies. The most common measurement of maternal health is through its counterpoint - the maternal mortality ratio (MMR), a measure of maternal deaths per 100,000 live births in a given time period. Maternal health and the reduction of MMR have become the focus of many government and NGO programs designed to increase the quality of health care and its utilization by women. These organizations report the outcome of their programs in terms of quantitative improvements, such as how many women accessed services in the past month, or how many immunizations were administered in the previous year. However, the success of maternal health interventions is only as strong as their recognition and utilization by the women they serve. The narrative testimonies of these women are often taken for granted in determining the efficacy of an intervention. Researchers and policy-makers must understand why women are or are not accessing certain services and must consider their "choices" in the context of their social environments. Reproductive and maternal health must be seen through the lens of both health equity and gender equality.

Pregnancy and childbirth are liminal stages in a woman's life where biological processes are happening inside her body, but the outcome of these processes is often dictated by external factors in her community. Considering how high the maternal mortality ratio is in many developing countries, pregnancy and childbirth can be high-risk undertakings yet are indisputably linked with the lives of most women around the world. Public health organizations seeking to lower the health risks of childbearing for women by connecting them with health care services must consider what social and economic factors might support or hinder women from accessing these services, even if they are affordable or conveniently located. Reproductive health is closely tied to a community's

attitude towards women and a woman's role in her society. A complete picture of the status of maternal health must be seen as a combination of her reproductive care and the social climate of her surroundings.

In a country with as much linguistic and regional diversity as India, maternal health and MMR are similarly variable nationwide. This diversity makes understanding the specific region in which a government scheme or organization is located crucial to favorable health and social outcomes. India has made great progress in reducing maternal mortality, which is down to 130 maternal deaths per 100,000 live births, but the country still contributes 20% of yearly maternal deaths worldwide.¹ Indian MMR values span from 46 per 100,000 in the state of Kerala to 237 per 100,000 in the state of Assam, showing that even within the country, factors are contributing to high-risk pregnancies and deliveries in some states and not in others.² India, like many countries, is working to lower their average MMR. To do that, they must look at the antenatal care, or lack thereof, that women in India are receiving. The World Health Organization's 2017 recommendations for complete antenatal coverage were as follows: counseling about healthy diet, rest, and physical activity, iron and folic acid supplementation, and at least one ultrasound before 24 weeks of gestation.³ In India, there are multiple disparities that affect whether a woman receives this recommended level of antenatal care. Rural or impoverished women, especially in Northern and Eastern India, are much less likely to receive antenatal care than are urban and wealthy women in Southern India.⁴ Women in urban slums and rural communities are more likely to fall below the poverty line. Studies have shown that poverty, even more than geography, reduces a woman's

¹ Government of India, "Maternal Mortality Ratio"

² Ibid

³ World Health Organization, "WHO Recommendations on Maternal Health"

⁴ Sanneving, et. al, "Inequity in India: The case of Maternal and Reproductive Health", 4

likelihood to receive prenatal care.⁵ To reduce this disparity, public health interventions are increasingly partnering with rural communities to deliver health care to women living in poverty who are least likely to have benefitted from national improvements in prenatal care access.

Not including the number of NGOs working on maternal health, the Indian government has instituted several maternal health schemes designed to improve mother-and-child pregnancy and delivery outcomes. Prior to 2005, the National Maternity Benefit Scheme gave financial provisions to women from households below the poverty line for up to two live births. However, the institution of the current programs in the early twenty-first century expanded this coverage to include all women regardless of household poverty status. This expansion reflects the growing knowledge that health access is not only determined by income. *Janani Suraksha Yojna* (JSY), implemented in 2005, intends to register all pregnant women for routine antenatal care as well as for an institutional delivery.⁶ JSY incentivizes mothers to give birth at a government health center by offering monetary incentives for delivery. There is also a smaller incentive given for home deliveries that are assisted by a skilled birth attendant. The goal of this program is to reduce MMR and IMR by ensuring oversight of the childbearing process and removing economic barriers to government-provided healthcare. The other key government scheme for maternal health is *Janani Shishu Suraksha Karyakaram* (JSSK), which provides free prenatal care to all pregnant women at government institutions in order to lower their out-of-pocket health expenditure. This program would ideally motivate women to seek consistent antenatal care and to deliver in the hospital.

It is crucial that the literature describing the effectiveness of these maternal health programs includes the experiences of rural and impoverished women and the practical and cultural considerations regarding their prenatal and childbearing practices. Researchers and policy-makers

⁵ Sanneving et. al., 5

⁶ Government of India, "Janani Suraksha Yojana (JSY) Guidelines." 2-4

from both the government and NGOs must understand *why* a woman makes the choices she does during pregnancy. This “why” comes from understanding her practices and seeing how she is supported or hindered by her family, community, the status of gender equality or the health services available in her area. The answers to these questions are best found through conversations with the women themselves. Qualitative dialogue provides depth and intimacy to the issue of maternal health disparities and places the self-described experiences and knowledge of women at the forefront of the discussion. These conversations are not steered towards telling women what they don’t know about seeking health care; rather, this study wants to know what their understandings of pregnancy and childbirth are and why they may or may not seek care and support from different groups in their community. The present study asks four main questions: 1) what are the experiences of women during pregnancy and childbirth? 2) what are the individual perceptions of, and attitudes towards these processes? 3) what are the experiences of women seeking prenatal care and support? and 4) what social or economic factors influence attitudes and practices during pregnancy and childbirth?

The location of this study is an important consideration for the topic of maternal health and the factors that influence prenatal practices. Jamkhed, Maharashtra, is the home of the Comprehensive Rural Health Project (CRHP), an NGO which is discussed further throughout the paper. Interviews were conducted in villages that CRHP has partnered with in the past for public health interventions and social development schemes— these are referred to as “project villages”. The occurrence of this past partnership with CRHP brought up a secondary question for the project: Would there be a shift towards increased healthcare access and a more medicalized understanding of pregnancy and birth in the Jamkhed project villages that may not be common throughout India? This paper is not an assessment of the prenatal care and health education that CRHP or its affiliates provide, but

rather considers the influence of the NGO as one of the socio-economic factors that affects reproductive health practices.

Data for this paper was collected through a combination of in-depth semi-structured qualitative interviews and a larger sample of answers to a structured quantitative questionnaire. Nine women were interviewed qualitatively and twenty-two were interviewed quantitatively. The interview questions focused on the processes of pregnancy and childbirth, though other topics relating to family planning and post-partum care were discussed. The combination of qualitative and quantitative data collection elicited women's perceptions of childbearing and their self-described practices while allowing for demographic analysis and numerical generalization where appropriate.

Background

Jamkhed and The Comprehensive Rural Health Project

Jamkhed is located in the Ahmednagar district in the state of Maharashtra, India. Health indicators for Maharashtra are generally above the national average: the 2016 MMR was 61 deaths per 100,000 live births⁷ compared with a national average of 130.⁸ Gender equality markers are mixed; on one hand, female education is increasing, and the state's maternal mortality ratio is the second lowest in the country. While the literacy rate in Maharashtra is higher than average (88% for men and 71% for women) there is still a consistent gender disparity.⁹ There is also a persistent preference for male children; the sex ratio (females per 1000 males) in the state is 894 and that number has decreased over time, which indicates persistent female feticide and child neglect in the

⁷ "Maternal Mortality Ratio"

⁸ Poonam Singh, "India has achieved groundbreaking success in reducing maternal mortality", 1

⁹ World Bank, "India State Briefs - Maharashtra."

state.¹⁰ About a fifth of the population in Ahmednagar district lives under the poverty line.¹¹ The majority of men in the project villages are farmers or seasonal laborers in the sugarcane factory at the edge of the district. The women in these villages are mainly farmers and housewives, with a few working in the factory, in tailoring businesses, or in family general stores. Maharashtra is hard-hit by drought, which makes environmental conditions challenging and impacts the economic livelihood of the majority of the state's rural residents.

The Comprehensive Rural Health Project has been partnering with villages around Jamkhed since 1970 to improve public health knowledge, health delivery systems, and imbalanced social structures.¹² The “Jamkhed Model” focuses on delivering health education to villages via community-selected Village Health Workers (VHW) who are trained by CRHP to deliver [public] health information and certain basic healthcare services, as well as connect village residents with medical services and government schemes.¹³ The CRHP VHW program was the original inspiration for the nationwide government ASHA program, albeit with several key differences. The main goal of both the VHW and ASHA program is to train a health activist from every community in order to provide health education and connections to government resources in hard-to-reach or impoverished areas. CRHP also partners with villages on tangible interventions, such as indoor toilets, water sources and pumps, and farming equipment, and the organization continuously trains the VHWs in emerging health topics. CRHP's involvement in villages has to be at the community's bequest and the relationship between CRHP and their “project villages” is a partnership that asks for stake from both parties. Villages eventually “graduate” from this

¹⁰ “India State Briefs – Maharashtra”

¹¹ Ibid

¹² Henry Perry and Jon Rohde, *The Jamkhed Comprehensive Rural Health Project and the Alma-Ata Vision of Primary Health Care*, 2

¹³ Rajikant Arole and Mabelle Arole, *Jamkhed: The Comprehensive Rural Health Project*, “Chapter 13: The Village Health Worker Training”, 158-181

partnership with the goal of sustaining both material and social improvements for generations to come.

Methodology

The study was conducted in two villages in the Jamkhed area – Patoda (pop. 2500) and Sakat (pop. 2700). Respondents were recruited from the survey records of the VHW in each village. Each woman was visited in her home and asked if she would agree to be interviewed for this study on the condition that her information was kept anonymous. Demographic information, including age, occupation, and number of children, was taken from all participants. The nine qualitative interviews were based on eight semi-structured questions that invited descriptive and narrative answers. A structured quantitative questionnaire with twenty-five questions was developed, translated into Marathi, and back-translated into English before being administered to twenty-two women. Thirty-one women in total were interviewed for this study. All interviews were conducted in Marathi, the local language, and all interviews necessitated a translator. All interviews covered the attitudes and practices of pregnancy and childbirth as well as other topics such as family planning and socio-economic influences. As the topics of pregnancy and childbirth are often inseparable from their place in a woman's life and from other topics related to motherhood, many of the stories and answers reflected these connections.

The Study Population

In India, pregnancy and childbirth among young women are nearly always found in the context of marriage. In all, 31 women above 18 years of age were interviewed during visits to two villages, Sakat and Patoda. Both villages are within fifteen kilometers of the CRHP campus and are past “project villages”, meaning that they had partnered with CRHP for public health interventions and social development projects in the last forty years. All interviews were conducted

in the women's homes in the presence of the researcher, translator, and village health worker, as well as varying female family members and neighbors. The presence of older females was unavoidable due to family hierarchies in the villages and was permitted in order to build trust with the family and the respondent. However, while having family members present can make a respondent more comfortable, it can also affect their willingness to share certain information, which is discussed later on. Because of ethical and legal boundaries, women under the age of 18 were not interviewed for this project regardless of their childbearing status. Although the ages of the women ranged from 18 to 32, the majority of respondents were between the ages of 20 and 25. The legal age of marriage for women in India is 18. Although the interview team stressed their independence from legal or governmental organizations, several women or their in-laws may have adjusted their age and the age of their marriage so as not to face repercussions for early marriage. About half of the respondents were first time mothers with children under 1.5 years of age. A quarter of women were pregnant for the first time and another quarter had multiple children with the youngest under 1.5 years. All women had husbands who were older than they were by several years. Respondents self-identified as Hindu (n = 14), Muslim (n = 12), Scheduled Caste (n = 4), or Other (n = 1). While the vast majority of respondents had some years of schooling, many had discontinued schooling after their 10th year. About half of the women self-described as housewives, with farming being the next most common occupation. The majority of respondents lived with their in-laws in non-nuclear families.

Table 1. Profile of Respondents

Characteristics	(%)
Respondent's Age	
18-19	9.7
20-24	54.8
25 & above	35.4
Husband's Age	
20-24	12.9
25 & above	87.1
Current Status	
First-time pregnant	22.5
First-time mother	45.2
Multiple Children	32.3
Years of Schooling Completed	
None	6.4
Up to 5	3.2
6-8	12.9
9 – 10	38.8
11-12	29.0
Post-Graduate	9.7
Religion/Caste	
Hindu	45.1
Muslim	38.7
Dalit	13.0
Other	3.2
Primary Occupational Identity	
Housewife	45.1
Farming	38.8
Sugarcane Factory	6.4
Other	9.7
Type of Family	
Nuclear	25.8
Non-Nuclear	74.2
Total	N = 31

Results

Overview

Childbearing is a complex process and the scope of attitudes and practices are better analyzed by focusing on specific stages of this process and analyzing each stage. The results of this study are organized within the two stages of childbearing that were the focus of the research question: A) Pregnancy, and B) Delivery. Women were asked questions during quantitative and qualitative interviews that facilitated responses about specific events during pregnancy and delivery, such as family planning, birth location, and complications. The subheadings for the results section denote some of these major specific events that came up during interviews, and the data is organized accordingly. Qualitative data from the nine semi-structured interviews and quantitative data from the twenty-two structured interviews are combined and subsequently analyzed under their specific subheading. At the end of sections A and B, a third section, “Subjective Analysis and Women’s Empowerment”, is included to analyze and contextualize larger social themes that weave the two main stages and subheadings of childbearing with community and cultural influences of family, gender, and health.

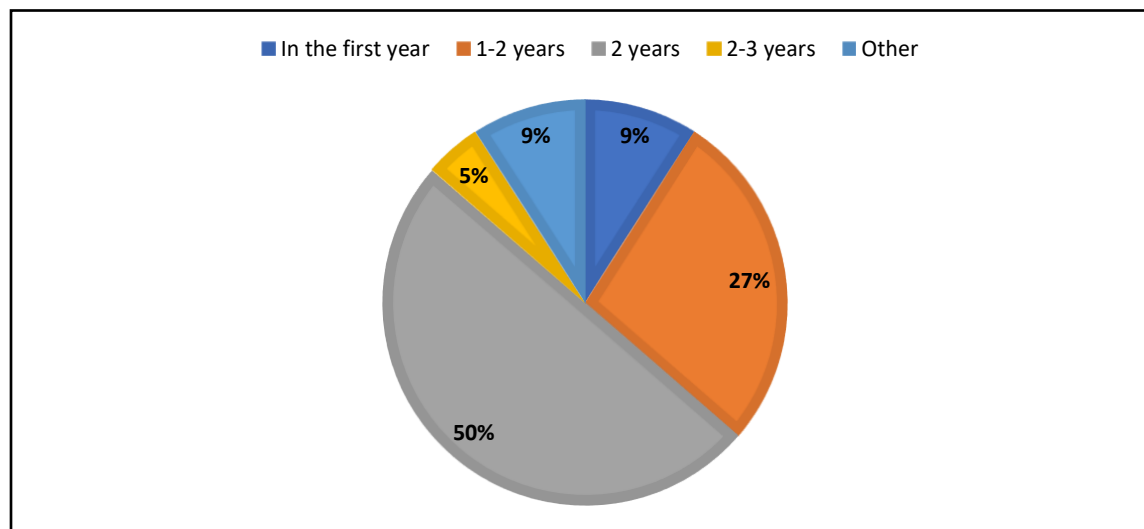
A. Pregnancy

Family Planning

Once married, young women encounter both familial and social pressure to have a child, but less is known about the timing and decision-making behind the first pregnancy. Over 95% of the women surveyed for this study said that their personal desired number of children is two. Two-child norms, promoted by the Indian government, are popular and well-accepted in the project villages now that rates of communicable disease and infant mortality are low. The use of temporary or reversible methods of contraception is rare. Of the thirty-one women surveyed, no women

reported using family planning methods before they became pregnant with their first child. Only one woman used any contraceptive between births (condoms). Non-medical forms of family planning are also uncommon; one woman reported conscious abstinence with her husband and another woman said that she and her husband used the calendar method to delay pregnancy. Other than these anecdotes, no other women discussed using any methods of temporary family planning. Spaces between pregnancies are often determined by lactational amenorrhea. Women are knowledgeable about the different kinds of contraception but there is still some reluctance to use temporary contraceptive methods, especially until a male child has been born. At least half of the women said that they and their families had jointly decided to do permanent family planning (tubal ligation) after two kids, or after the birth of a male child. The only exception to the two-child norm is the continued desire for a male child. Women who had three children usually had two older daughters and had tried for a male child on the third pregnancy with varying levels of success. These women still insisted that two children were the ideal number of children and recounted the pressure they felt to try again for a male child.

Figure 1: Desired timing of a woman's first pregnancy after marriage



Half of the women said that their individual ideal timing of their first pregnancy was two years after they were married, and another quarter said that their ideal first pregnancy would be between one and two years after marriage. Just 10% of women responded that the ideal scenario was to become pregnant within the first year. Women were asked about their individual preference for when they wanted or had wanted to have children. However, given the prevalence of the two-child norm in the project villages, it is difficult to separate individual preference from societal ideals. Two women gave specific age-related answers – both said that a woman should wait until she was twenty-two or twenty-three years old to have children, no matter how long she had been married. The reasons for wanting to delay the first pregnancy were that a woman would have time to become adjusted to life with her husband and in-laws, and so that she would be a little older before becoming pregnant. However, only a handful of women did not become pregnant in their first two years of marriage. One of the women who said that twenty-two was the ideal age of first pregnancy was eighteen years old, four months married, and two months pregnant. The timing of a woman's first pregnancy is not up to her: families want proof of fertility and two healthy children as soon as possible. CRHP and the VHWs advise young women to wait three years between pregnancies, and about half of the respondents agreed that at least three years is a good space between children. However, due to the infrequency of contraceptive use, the timing and spacing of pregnancies is not delayed and the space between births often ends up being shorter than two years. This is especially true if a girl is born first: the family will be in a hurry to have a male child and the space between children will be shorter. Sex-determination via sonography is illegal in India, but sex-selective abortions still occur. One VHW told the researcher that if there was a girl child who didn't have any siblings and was over three years old that she would suspect that subsequent fetuses were being aborted. One woman had two children and one of them was a boy,

but she and her husband had not used any family planning methods and she was pregnant with a third child. Her husband wanted her to abort the fetus even though she wanted to keep the child. It was unclear what she would end up doing. The choice to use a family planning method or to abort is nearly always up to the husband or the in-laws. Married women have very little say in the decision – the only joint agreement that many couples made was to seek permanent family planning after their two children were born.

Prenatal Education and Care

In order to understand their childbearing experiences, married young women were asked about diet, physical workload, antenatal care, and support during pregnancy. The majority of women reported receiving no education about pregnancy until they were married. Some had a sister-in-law or another female relative who was pregnant while they were still living at home, but most women said that the bulk of information about pregnancy came after they moved to their in-laws' house. The most common way of ascertaining pregnancy is a missed period, after which the pregnancy is confirmed at the hospital.

Young women pregnant for the first time receive the majority of their health education from their mothers-in-law. She tells them what to eat, when to rest, and makes decisions about when to seek antenatal care and where to give birth. Most young women are married around the age of 18 and are pregnant shortly after, so the experience of older female relatives is seen as invaluable. The majority of women surveyed reported that their mother-in-law advised them during pregnancy and the mother-in-law was the person that was trusted most during that period (followed by the husband). It is possible that trust and obedience are intermingled in the complex relationship between in-laws and daughters-in-law. It is likely that the childbearing competence of the mother-in-law as well as the deference of the daughter-in-law to her in-laws results in the new mother

trusting and obeying the instruction of her in-laws without question. The VHW and the ANM also advise women who are pregnant but because of proximity and family hierarchies, women are most likely to be guided by their female relatives in their marital homes.

While family dynamics do influence a woman's lifestyle when she is pregnant, the family and the VHW are in agreement about the importance of prenatal care, and it is rare that a family would dissuade a pregnant woman from seeking care from the Auxiliary Nurse Midwife (ANM) or the hospital. All women reported regular monthly checkups from the ANM at the Anganwadi Center and nearly all of them were also checked multiple times at either the government hospital or the private hospital. Families in the project villages look very positively on medical interventions during pregnancy and they are more likely to seek above the recommended number of antenatal checkups and sonographies than they are to neglect a woman's prenatal care. All women reported very positively on their experiences with the ANM, VHW, and with the hospital, and were satisfied with the prenatal care that they were receiving.

The system of prenatal care delivery in the project villages is very efficient because of the social knowledge of the VHW. She knows who is newly married or pregnant and can therefore encourage families to attend the monthly immunization days and to take the nutrition advice, supplements, and iron tablets from the ANM. The ANM, or "Sister", provides most of the prenatal care in the villages. She administers the IFA tablets and tetanus injections from either the Anganwadi center or from the local health subcenter. All women surveyed met the WHO criteria for receiving adequate prenatal care: iron supplements, tetanus injections, and at least two sonographies. The tablets, immunizations, and government hospital sonographies are free under JSSK and JSY. However, the majority of women received sonographies at the private hospital and paid for those services. All women reported being checked by the ANM at least once a month.

Lifestyle Changes

All women surveyed had received advice from relatives or from health personnel to make lifestyle changes when pregnant. These included being extra conscious about nutrition, eating lots of leafy green vegetables and protein, and avoiding heavy work. However, the level to which each woman was able to follow this advice varied. Many women reported eating less when they were pregnant; this was due to nausea or abdominal pain, not to any forced restriction of food. Only three or four women noted that they ate more than usual, and the majority of women said they ate “as usual.” Sometimes a diet change would be noted, such as an increase in vegetables or protein, but in general women were consuming a similar, if not lower, caloric intake to before they were pregnant. Maternal anemia was still common, especially among Dalit women, which indicates that many women are still not receiving enough iron despite being advised about nutrition. Most women reported that affording proper food was not a problem, but that they didn’t feel hungry enough to eat more than usual.

The majority of women reported working less or doing lighter work when they were pregnant. Women clearly expressed the importance of rest and most said that they were able to take rest when they needed. Their family members were also very insistent on proper rest and would often take on the heavier work when a family member was pregnant. Lots of women, especially those that were farmers, worked the whole time they were pregnant but did lighter, more sedentary work like weeding or cutting vegetables. Only two women continued to do heavy work throughout their entire pregnancy, and they were both sugarcane factory workers. These two women and their families acknowledged that although they knew that they needed to avoid heavy work, family finances made it impossible for the expectant mother to take time off. This pattern of work suggests that the knowledge to take proper rest is nearly universal, but the ability to do so is dependent on

occupation and household makeup. Family members are important sources of support during pregnancy as they can relieve the expectant mother of her workload; when asked how they were supported during pregnancy, most mothers commented on their family's division of labor when they were pregnant.

If women had multiple pregnancies, they were likely to retain the same practices. Exceptions were made for women who were anemic – nearly all of them incorporated more protein or more iron tablets in their subsequent pregnancies. The change in diet was likely due to the financial expense and stress caused by blood transfusions necessary in cases of severe anemia. Some women also reported that their mood changed in their second or third pregnancy – some improved, having had one experience which lessened their stress, while some women were under added pressure to have a boy or were worried about complications with their next pregnancy.

Beliefs

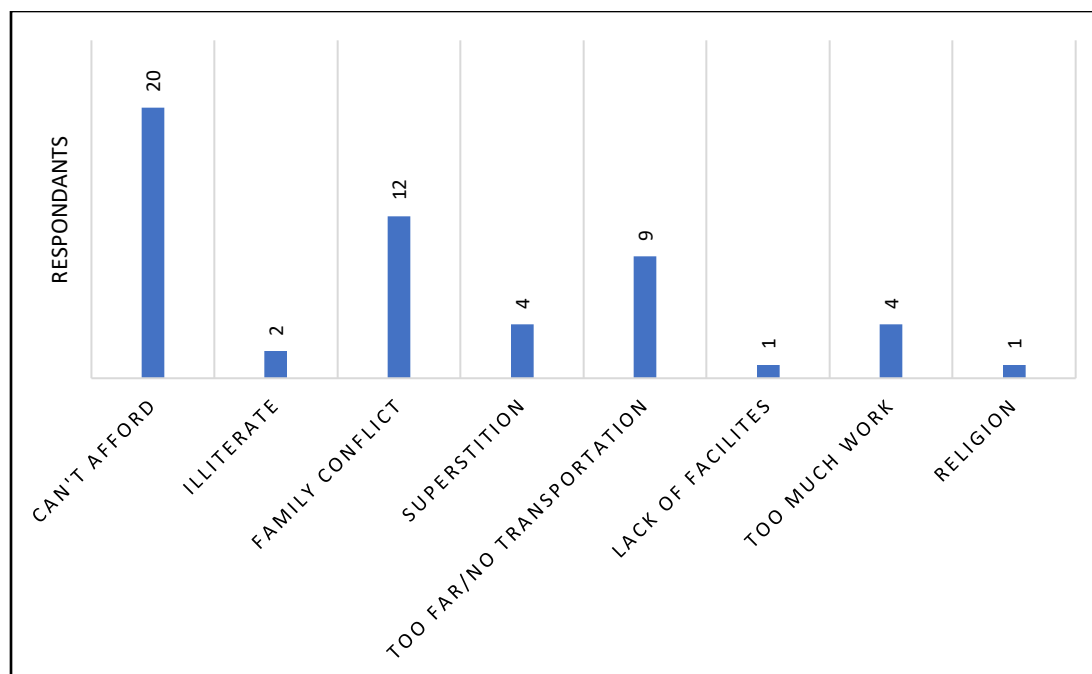
Although medically-supported prenatal care is accessed by nearly all pregnant women, certain beliefs regarding pregnancy are still practiced in the project villages. The most common belief described in interviews was that certain fruits, namely papaya and banana, would cause a miscarriage or a deformity if eaten during pregnancy. Some women said that they had heard this from family, others said that they had heard the belief from neighbors or other laborers. One woman said that the doctor had told her to eat all fruits, but that her family believed that bananas and papayas were bad, so she followed her family's advice over that of the doctor. Another woman was also told to avoid fruits, but she and her mother-in-law scoffed at that "superstition" and she ate as usual. The fact that many women avoid these fruits is not only based in superstition. Unripe papaya is not recommended by allopathic doctors because it could induce early labor, which would explain the occurrence of miscarriages, but families in the project

villages also attribute unrelated complications such as facial deformities to eating fruit. However, ripe papaya can be nutritiously beneficial. Women did not differentiate between unripe and ripe fruits in their answers, which suggests that papaya, banana, and other fruits are avoided indiscriminately during pregnancy in families who believe they are harmful. The prevalence of this belief suggests that many women may not be getting the recommended fruit intake because at least two common fruits are believed to cause problems in pregnancy or delivery. The influence of a family's practices are also demonstrated as taking precedence over the advice of a doctor or a neighbor.

During the lunar eclipse, many women reported being told to not do any work if they were pregnant. Several women noted that their families followed this belief, but they did not see it as harmful – rather, they didn't mind because they got to take more rest. A third common superstition is that too much rest or sleep could cause the baby to stop moving in the womb. Whether this third belief was developed to keep women working while pregnant or to encourage routine exercise is unknown. Because the beliefs that remain in the villages do not tend to cause harm to the pregnant woman, there is only a minimal effort to unroot them. VHWs and doctors continue to advise women to eat fruits and to get both rest and exercise, but the advice can only hold up with the support of the family.

Social Determinants of Decision-Making

Figure 2: Barriers to receiving prenatal care and good birth/MH outcomes as described by village women.



The project villages have seen a lot of success in promoting routine antenatal care among women from many social and economic backgrounds. The researcher wanted to know if there would be any areas in which this near-universal coverage was not consistent. During the interviews, women were asked if there were any reasons why a woman might not receive prenatal care. The question was given in a general format, so that even if the respondent didn't experience any barriers to access, she could respond with why other women might not receive the same care. The number one reason for a woman not receiving prenatal care was "money problems". All sorts of ills were put down to money, from family conflict to mental health to the affordability of quality care. Government schemes like JSY and JSSK have made prenatal care free in all government hospitals; money theoretically wouldn't affect a woman's ability to access care. However, the majority of women in the project villages preferred the private hospital, which is closer than the government hospital, but also because they believe that the private facilities give better care. It costs about four to five-thousand rupees for a normal delivery at the private hospital, and upwards of twenty-five-thousand rupees for a C-section; neither of these

costs include ANC or additional complications. Nevertheless, families overwhelmingly took pregnant women to the private hospital for ANC and for delivery, even if it meant borrowing money from banks or neighbors. This trend suggests that although there are services available for families that cannot afford the private hospital, these are seen as lesser quality. For the families interviewed in this study, the quality of care took precedence over affordability whenever possible. Families would rather pay money for what they saw as quality prenatal care than receive the incentives and free services at the government hospital. The government facilities were also said to make lots of referrals to other hospitals – when labor and delivery are imminent, most women would rather go to the private hospital and be admitted faster. Several women noted that distance or lack of transportation would be a barrier to accessing services. Most women were able to afford rickshaws or private cars to get to the private hospital, but even if a woman was intending on going to the government hospital for free services, her family would still need to get her there. There is a free ambulance service specifically for delivery under the JSSK program, but only two women reported being transported for delivery in the ambulance. Most women said that the ambulance takes too long and that their families would rather save or borrow money to hire a private car to take them to the hospital.

A woman's education also impacts the knowledge and decision-making agency that a new mother has. Only two women said that "illiteracy" would stand in the way of accessing prenatal care, but the way that women described their pregnancies and their support systems was different across the educational spectrum. Since education is often coupled with age, older first-time mothers tended to be more educated. Some women with post-graduate schooling reported more joint-decision making with their husbands yet other women with a similar level of education said that their mothers-in-law still made the majority of decisions. However, women with more

education did report being able to make some decisions on their own, whereas the majority of women who received less than a 12th class education said they made no decisions for themselves. Education does not determine birth outcomes or autonomy over the pregnancy process, but women's reported knowledge of their pregnancy and birth experiences increased, and they were also more forthcoming in interviews.

Age is also an important factor that influences pregnancy practices and decision-making. Most new mothers are between 18 and 20 years old, and there were very few first-time mothers who were older than twenty-five. Older first-time mothers reported receiving advice more often from women besides their mothers-in-law. They were more likely to say that decisions had been made jointly or more likely to have been able to make any decisions at all, such as where they wanted to give birth or whether they wanted to use a family planning method after delivery. Older mothers of multiple children reported their decision-making increased with subsequent pregnancies and experience, but they were likely to "choose" the same practices regardless. Older women are also more likely to say that they were counseled by the VHW or the ANM. Because of their age, it is possible that they saw the VHW or ANM as a peer instead of an older, more respected woman to which they would have to defer. All interviews with mothers over the age of twenty-eight ($N = 4$) were not conducted with any female relatives in the room, which speaks to the control that age and experience give women. Younger women, when asked who advised them, would nearly always say their mother-in-law or mother advised them, but when asked later who they trusted or who supported them, would name a sister-in-law, sister, husband, or neighbor about half the time. This difference suggests that although the mother-in-law is making decisions for young first-time mothers, these young mothers will seek out women who

are more similar to them in age and birth-timing to discuss their pregnancy or for emotional support.

Family conflict was an important determinant in a woman seeking prenatal care. If there was trouble in the family, such as an alcoholic husband or father-in-law, a woman might have a harder time seeking care due to a lack of money and a lack of familial support. Multiple women also pointed out the toll that this conflict would take on a woman's mental health. The most common term for this conflict is that someone is "troubling" the woman, which can mean anything from family disagreements to physical and emotional abuse. One woman had been abandoned by her husband, an alcoholic, three months into her second pregnancy, and now lived with her mother. Her husband has her older daughter and has not come to visit the twins, nor does he support the family financially. This has taken a toll on the stress and finances of both the new mother and grandmother – the mother is unable to produce enough milk for the twins and her family has had to borrow money for multiple blood transfusions due to anemia. Another woman's father passed away in her second pregnancy. The resulting depression caused her to neglect food and care for about two months and she attributes her baby's low birth weight to her "sadness" and her inability to care for her physical and mental health during that time. Familial support is very important when it comes to proper planning for a pregnancy as well. Since so many families seek care at the private hospital, they have to save for ANC and for delivery in advance of pregnancy. If the family is dysfunctional or if there is conflict, there might be not enough pre-planning for care or the money might be diverted away from PNC, meaning that the woman will have to forego a certain quality of care.

Only two women suggested that religion would interfere in seeking prenatal care. Positive birth outcomes have done away with most religious objections to immunizations and institutional

births in the project villages. Certain beliefs may slightly affect diet and workload as noted earlier, but they do not negatively affect prenatal care utilization. Several women who were not being interviewed but who were present during certain interviews with Hindu mothers were of the opinion that Muslim women were less likely to access prenatal care, specifically immunizations, or less likely to get permanent family planning because of their religious beliefs. However, discussions with women who self-identified as Muslim did not reveal any differences from Hindu or Scheduled Caste women in PNC utilization. The tendency to reduce the question of maternal health access to one's religion is an easy trap to fall into, and Muslim women in India tend to be the subject of stereotypes based on their religion because of their minority status. Despite these lingering beliefs however, there are clearly more factors involved in PNC utilization that are more important than religion, especially in the project villages.

Although pregnancy and birth are family affairs, neighbors almost always know when one another is newly married, expecting, or recently-delivered. For young mothers without in-laws, the influence and assistance of neighbors can fill the need for older female experience and guidance. The support that the project villages have for the VHW and for comprehensive prenatal care is also important to the success of their PNC coverage. After 40 to 50 years of involvement from CRHP, the practice of monthly checkups and antenatal care is ingrained in the community. When the VHW accompanied the interview team, she would often check blood pressure or provide some counseling after the interview. In certain cases, such as a proposed abortion or a troublesome family member, she would advise the young mother and her words no doubt held sway considering the influence of her position in the community. If a woman wasn't receiving care, there would likely be social pressure on her family from the VHW and from neighbors that would ensure that she did receive medical care.

It's important to note that most women did not say that they themselves had any problems with family or problems accessing prenatal care. However, when the subject of general barriers came up, there were many reasons why a woman would not be able to access prenatal care. This could mean either that the women are not as comfortable describing their own struggles, if they exist, but are willing to speak about conflict in general. However, considering the close nature of the community and conversations between neighbors, there are likely enough stories of difficult pregnancies and dysfunctional families to make women knowledgeable about what can impede a successful pregnancy, even if their own experience was fine.

Familial Influence

The family structure in the project villages is an important determinant of a woman's experience during pregnancy. Since newly married women live with their in-laws, they are relegated to the lowest rung of the family hierarchy. Daughters-in-law address their husbands and in-laws with respectful terms whereas the daughter-in-law herself is called only by her name. Due to a young mother's low status and inexperience, older female relatives generally make all the decisions for the expectant mother, including when and how much she should eat, how much work she should do, when and where ANC and delivery will take place, and the timing and spacing of children. Young mothers generally don't see their lack of decision-making power as a problem. They are often grateful for the experience and guidance of older relatives - 60% of women said that their mother-in-law or sister-in-law was the person they trusted most during their pregnancies and another 23% listed their mother as the most trusted person. In the absence of a mother-in-law, women will turn to another female relative such as their mother, sister, or cousin for advice. Hierarchical family structures are important to the decision-making process. VHWs and village ANMs generally do not clash with families over prenatal care because the

two parties are already in agreement. Both VHWs and families want the best for the health outcomes of pregnant women and their children, and both the family and the health workers want to support women during this time. However, despite their generally positive health outcomes, young mothers have little say in what happens to them during pregnancy. Where women generally hold some decision-making power or where they desired to hold it was when it came to family planning. Many women made joint decisions with their families to do permanent family planning after having two children. Women in general wanted two children and more time between their pregnancies, but the eventual number and spacing was almost always up to their husband or their in-laws.

During the interviews, mothers-in-law and/or other female relatives would oftentimes sit in the same room and interject on occasion. Although the purpose of the interview is to get the perspective of the woman herself, many new mothers would look to their mother-in-law for affirmation on their answers or mothers-in-law would offer information as to their daughter-in-law's pregnancy. Mothers-in-law have a lot more freedom to speak in the traditional family structure. This hierarchy can make it difficult for daughters-in-law to speak their mind or to trust their own experiences, but it can also provide valuable information into how the pregnancy progressed. Daughters-in-law are young, inexperienced, and overwhelmed during pregnancy so mothers-in-law, who already have a vested interest in the pregnancies, tend to remember details about prenatal care and complications, as well as any advice they told their daughter-in-law before and during pregnancy. In-laws and husbands also control the money in the family so when questions were asked about hospital bills and the cost of prenatal care, the mother-in-law or another senior female family member had a better idea of how much the family had spent on PNC and during delivery. Previous studies have reinforced the idea of the mother-in-law as

either a crucial supporter and guide for a pregnant woman, or as a harbinger of stress and obstacles to receiving proper PNC.¹⁴ In the case of the women in these project villages, their mothers-in-law are generally very supportive during pregnancy in making sure that their daughter-in-law is nourished, rested, and receiving antenatal care from the ANM and the hospital. The relationship gets more complicated when it comes to family planning and birth spacing – husbands and in-laws want male children as soon as possible whereas mothers themselves would prefer to space out their births. Generally, in these situations, the choice of the in-laws or husband takes precedent to what the mother wants.

Women in large families or joint households have more assistance when it comes to easing the burden of work. Support during pregnancy was described by most women as her family taking on extra work so that she does not have to and cooking her food whenever she wants it. Husbands are taking more of an active role in pregnancy now, oftentimes making decisions for or with their wife and attending antenatal appointments and the delivery. In families without close female relatives, the husband is often educated by the VHW or the ANM to provide support for his wife. Every woman described being supported by at least one member of her family, and most women said that their whole family supported them by doing household chores, taking them to ANC appointments, and providing emotional guidance. One distinction was that a woman's mother, husband, or sister was most likely to provide support during pregnancy and delivery, whereas mothers-in-law were most likely to give advice. This trend speaks to the hierarchical relationship between in-laws and a young mother: the wellbeing of the family in the marital home is perhaps more important than the individual experience of the daughter-in-law. Conversely, the woman's birth mother or a female peer would be more likely to support the

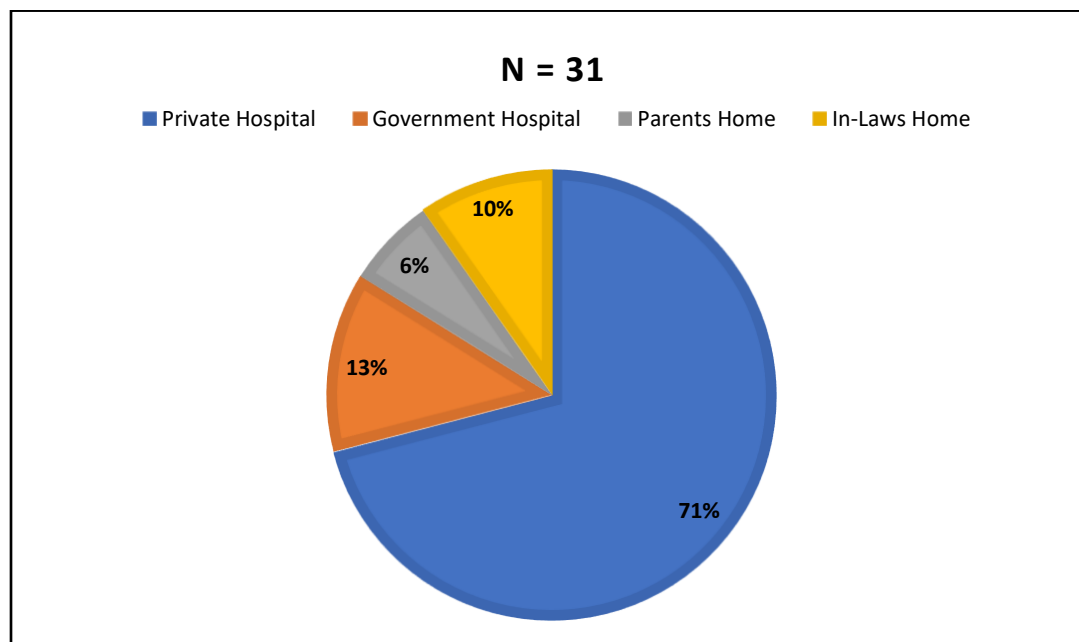
¹⁴ Rekha Vargese, and Manan Roy, "Residence with Mother-in-law and Maternal Anemia in Rural India."

wellbeing of the new mother herself. Some women communicated with a female peer closer in age that had a more recent experience with childbirth and could provide the most current advice and emotional support

B. Delivery

Location

Figure 3: Location of delivery for most recent child (planned for women pregnant with their first child).



All women surveyed reported having made a plan for their most recent delivery. The most common component of the delivery plan was deciding whether to deliver at the hospital or whether the woman should return to her original village in the ninth month of her pregnancy. Traditionally, women from the villages surrounding Jamkhed will return to their natal home for their first delivery. However, the push towards 100% institutional delivery has been effective in the project villages. 71% of the women surveyed had delivered or planned to deliver in the private hospital, 10% delivered at their in-laws, and 6% delivered at the parents' house. Because

of the strong utilization of hospital antenatal services, women tend to have very accurate data for how far along they are and are able to plan their delivery location and assistance. A few women who delivered at home said that they had planned to deliver at the hospital but that the baby had come too quickly. There is a preference for delivery in the private hospital and most women and their families had delivered or planned to deliver there. Now that institutional births are more common, women are nearly always attended by doctors and nurses as well as by multiple family members who accompany them. All women surveyed rated their hospital experiences as highly satisfactory. No women reported any abuse or harassment from the staff at the hospital, which from previous studies is known to be a barrier to seeking medical care.¹⁵ Because so many women are delivering at the private hospital and paying for services, they are treated quite well there and generally do not experience any problems. Mothers and families are also so grateful for the birth of a healthy child that the cost of the private hospital is willingly paid. Several women said that those who cannot afford prenatal care will go to the government hospital. Although harassment or abuse from the staff at the government hospital is unknown, the free services may make patient satisfaction a lesser priority. However, distance, poor-quality facilities, inconsistent water, and the referral system are the more common reasons for a woman choosing not to deliver in the government hospital.

Who helps/attends?

Women are most often attended by doctors and nurses now that they are increasingly giving birth in hospitals. Besides that, a woman's mother was the most likely person to be present while she delivered. A point of note is that while mothers-in-law are by far the most advisory towards a

¹⁵ Tabassum Nawab et. al, Disrespect and Abuse during Facility-based Childbirth and Its Sociodemographic Determinants – A Barrier to Healthcare Utilization in Rural Population."

new mother, they are not as often present for the delivery of the child and will come to see the mother and child after the birth. Delivery is a family affair and women are very unlikely to be alone while giving birth. Only one respondent delivered alone, and it was because she had gone for defecation and ended up giving birth at the same time. Although there is still a preference for female family members to be there during delivery, several women said their husbands or male in-laws were also present. One young woman who was pregnant for the first time said that she only wanted her husband in the room when she gave birth. Husbands and male family members are increasingly present in the delivery room and are increasingly noted by their wives as being sources of trust and support during pregnancy and delivery. One older woman who interjected said that the involvement of male family members had increased due to the influence of CRHP. On the rare occasion that a woman delivered at home, her mother-in-law or mother would conduct the delivery with assistance from another relative or neighbor, and the VHW would usually be called. However, home delivery is uncommon in the project villages.

Stress and Pain

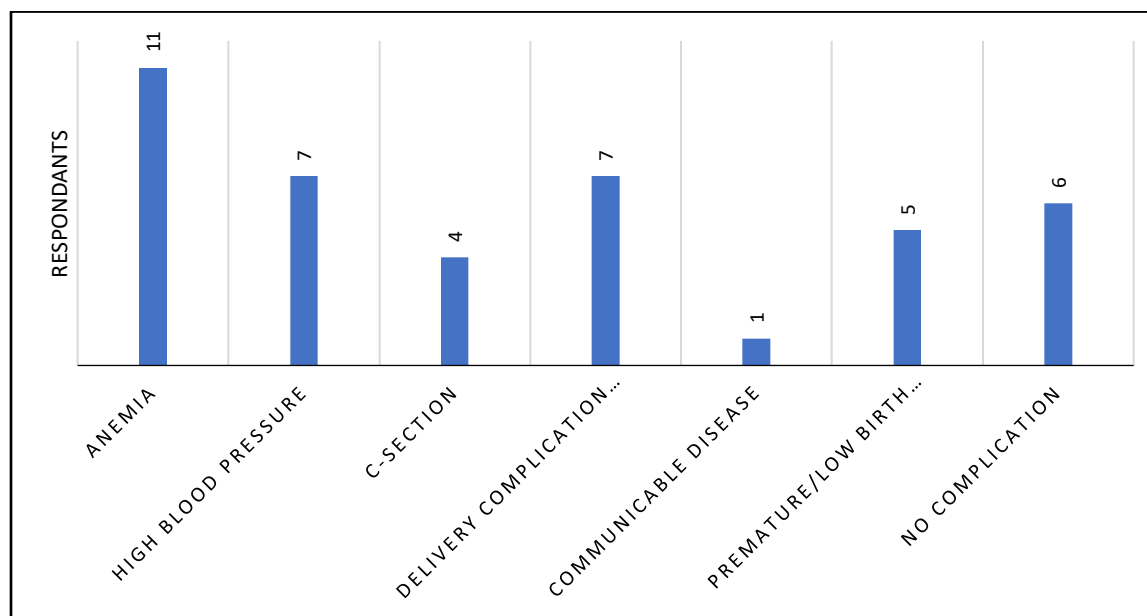
When asked about their stress and anxiety during pregnancy, the majority of women said that during their first pregnancy they were worried about the delivery and how it would be. This worry was a combination of fear for themselves and for the health of their baby, as well as general inexperience with a hospital setting. The majority of women rated their stress while pregnant as either “moderately stressed” or “very stressed”. They would often turn to a female relative, preferably closer in age or with a recent delivery, for emotional support and guidance.

It is unclear how many women are utilizing a form of pain relief when they give birth. As the majority of women are giving birth in the hospital, it would suggest that they are also getting epidurals or a local anesthetic. However, many women remembered getting injections to induce

labor (oxytocin) or an injection of saline to help the uterus contract after birth but could not pinpoint getting an injection specifically to relieve pain. There is still a belief that women should be able to bear the pains of childbirth, as suggested by older members of the family commenting negatively on their daughter-in-law's vocalization of labor pains. One older woman who sat in on an interview noted with pride that she herself had given birth to four healthy children at home with no pain relief. There is definitely still a preference for bearing the pains of delivery, as evidenced by the interjections of in-laws who gave birth to many more than two children without any pain medication. There were also opportunities to observe cultural attitudes towards vocal distress of women during tubal ligation camps in the local hospital.

Complications

Figure 4. Self-reported problems/complications during latest pregnancy and delivery.



As can be seen from Figure 4., 70% of women surveyed self-reported health problems or complications during pregnancy and delivery. The vast majority had sought treatment from their village ANM for minor problems or from the private hospital if the complication was severe.

Women in the project villages are having many more sonographies than before – most women have at least three and several women reported having up to eight. Complications with the fetus are thus easily detected and abortion for reasons of defect or deformity is legal in India for the first trimester. The complications that affect women during birth are more likely to result from a chronic condition during pregnancy or from an emergency with the baby. Complications from communicable diseases are very rare – only one woman reported having Dengue during pregnancy which necessitated a C-section. The most common complications among all women were anemia and hypertension. Anemia among women who marry into the project villages is much more common than anemia in women who were raised in the project villages because of CRHP's partnership with the village on nutrition education programs. Several women reported low hemoglobin levels at the beginning of their pregnancies but with changes in diet and iron supplements from the ANM, they were able to raise their hemoglobin percentage. Some women were so anemic that they needed blood transfusions, which carries additional risks, so changes in diet are the first line of protection. High blood pressure is part of the emerging category of NCDs that are complicating deliveries in the project villages. Lifestyle and genetics compounded by the stress of pregnancy have contributed to the increase in hypertension among young mothers. Delivery complications such as aspiration on feces or amniotic fluid, the use of forceps, or an episiotomy are also quite common, as are premature and low-birth-weight (LBW) babies. Since many young mothers are giving birth at 19 or 20 years old, if not younger, their bodies are small which can make full-term gestation and normal delivery difficult. More women reported that their family would rush them the hospital for minor ailments rather than ignore their health complaints. Having a healthy baby and healthy mother at the end of the day is the most important thing for families and they are willing to take the time and money during pregnancy and delivery

to ensure the safety of both mother and child. The two-child norm helps incentivize these practices—better care and money spent on two children is acceptable because the prognosis of survival is very good in the project villages.

Subjective Analysis and Women's Empowerment

Women are experiencing a better social position today than in the past in the project villages of Jamkhed, with more value being placed on their lives, their education, and their well-being. More women are being educated at the high school-level, and most families are waiting until their daughters turn eighteen to arrange their marriages. More women are aware of family planning methods and birth spacing and the two-child norm is a testament to the public health success in reducing child mortality in the project villages. Women are also experiencing good relationships with their in-laws, and the majority of women said that their mother-in-law advised them and supported them during pregnancy.

However, women are also still at the bottom of their family hierarchies. Although they have their own preferences for family planning and birth spacing, women have very little say in the timing of their first pregnancies or the space between the two pregnancies. The use of contraceptives is still extremely rare. Most decisions about practices during family planning, pregnancy, and childbirth are taken by in-laws and/or husbands. While young mothers trust, and more importantly obey, these opinions, they are not receiving adequate reproductive health education before marriage. While several women described their prenatal decisions as “joint” with their husband or in-laws, their background knowledge supporting these decisions also came primarily from their in-laws, which begs the question of how much decision-making agency they actually have. At least one female family member was present in about 75% of the interviews and they would often contribute their opinion or knowledge unsolicited. Young mothers were

more likely to look to their older relatives for affirmation of their answers. Mothers who had sought post-graduate education were more likely share more knowledge about reproductive health and were more likely to sit for interviews without their in-laws. However, education was no guarantee of agency. One woman with two years of a bachelor's degree said that she would have been fine with permanent family planning after the birth of her two daughters, but that her family wanted a male child so she would be pregnant again soon. Another woman held a master's degree and was the only woman in the survey to have used condoms between her pregnancies, but she said that her mother-in-law still made the majority of decisions for her during her pregnancy.

Family support is the cornerstone of a woman's pregnancy, but familial and social expectations of childbirth and domestic responsibilities still hold sway over the lives of the young women in the project villages. CRHP and the VHWs run Adolescent Girls Groups (AGG) in several of the project villages which are designed to teach girls about mental and physical health and about prominent social issues to help break down gender inequality and so these girls can be leaders in the next generation¹⁶. Women's groups (WG) and self-help groups (SHG) are in nearly all of the project villages and are designed to provide women with emotional outlets, financial autonomy, and social support to take charge of their own decisions. These interventions are the core of CRHP's partnership with project villages on their commitment to sustainable women's empowerment. However, only two of the women surveyed were involved in a SHG and only two other women had family members in a WG or SHG. One young woman was in an AGG when she was in the 8th class, but at the age of twenty-four with one daughter and another child on the way, she had lost the confidence and talkative nature that her teacher said that she

¹⁶ CRHP Jamkhed, "Programs".

possessed. Although the education provided in these groups is valuable, as are the groups themselves, this knowledge cannot stand alone against a traditional family structure and the pressure to have children as soon as possible. Young women cited too many responsibilities or lack of interest as the main reasons they themselves were not involved in one of women's social or economic groups. As young mothers, they are very busy raising children and doing both housework and occupational work. After they leave school to be married, they are often much more socially isolated from their peers and are more integrated into their new family structures. There is also the feeling that the push for women's empowerment has stalled in this generation of young mothers. Birth outcomes are successful so there is less of a push for social reform.

It's important to note that all women in the project villages transition from a young daughter-in-law to an older mother with enough experience and agency to eventually take on the decision-making of a mother-in-law. Every woman was once a new mother at the mercy of her family's choices for her life, whether positive or negative. The experience and knowledge she eventually gains is invaluable and if utilized with compassion and self-reflection on her own history, can create a new cycle of empowerment and independence in her daughters and daughters-in-law, which in turn will lead to better family health outcomes and a more equitable social structure. This is not to say that a family is only detrimental in pregnancy – much of this study centered on how important family is as a support mechanism. However, there are still decisions that women would like to make but are unable to, so there must be more work done to return their agency to their reproductive health.

Conclusions

Pregnancy and childbirth are indisputable stages of life for the overwhelming majority of women in rural Jamkhed. Women are married around the age of eighteen and begin to bear

children soon afterwards. The two-child norm is nearly universal in the project villages. Antenatal care is utilized by families all across the economic and social spectrum, with the majority of families receiving care from the ANM or from the private hospital in Jamkhed. Women are advised to work less when they are pregnant and the majority of them do; most women consume a more protein-filled but similarly caloric diet when they are expecting. Complications due to communicable diseases are rare, while complications due to anemia, hypertension, or delivery emergencies are quite common.

Most women see pregnancy as a stressful yet normal experience. While most women surveyed would have liked to see a two-year gap between their marriage and their first child, the majority of women become pregnant soon after their marriage and thus adjusted to married life with their in-laws while simultaneously preparing for motherhood. Most women did not report having any education about pregnancy prior to marriage. Pregnancy, childbirth, and new motherhood can be overwhelming experiences and women rely on the guidance of female peers and older female relatives. Stress tends to decrease with subsequent pregnancies, except in the case of complications or with added pressure to produce a male child. Most women are in agreement about two-child norms and the benefits of permanent family planning methods, which have been shaped by the recommendations of the Indian government and the involvement of CRHP, but they are ultimately at the mercy of their family's decisions about the structure of the household.

Prenatal care utilization is nearly universal, and the majority of pregnancy practices are in accordance with the advice of the VHW and medical professionals. Women receive immunizations and IFA supplements from the ANM at their village health subcenter or at the Anganwadi Center. They also receive counseling about diet and rest from the ANM and from the

VHW. The VHW is important in motivating pregnant women to go to monthly immunization days and checkups and in accompanying them to hospital visits on occasion. All women received at least two sonographies, but most women received more than four. The majority of women give birth in the private hospital and pay for the fees through the family's income or by taking out loans. Families interviewed were willing to spend up to hundreds of thousands of rupees on a delivery if there were complications. Although poverty and poor planning do affect prenatal care, most families are willing to save or borrow the money for childbirth because the child has such a high survival rate in the project villages. Most families tend to view the quality of the government hospital as subpar to the private hospital. Home deliveries are decreasing, and they are usually attributed to a quick birth that didn't make it to the hospital. Women are very satisfied with the quality of the prenatal and delivery care that they receive from the ANM and at medical facilities.

A number of social factors influence a woman's practices and autonomy when she is pregnant. Families are crucial support structures during pregnancy: they assist with household work, help young women access prenatal care, and provide emotional support during pregnancy and delivery. Female relatives guide a young woman through pregnancy and birth and are often the first line of information on either topic. A woman's family is quick to make use of medical services for complications during pregnancy and delivery. However, families also make the majority of decisions for the woman when she is pregnant, and she has very little say in the kind of care she receives. Women don't tend to object to the prenatal care they receive but most women would prefer a longer space before their first pregnancy and between births. In these cases, the decision of her husband or in-laws takes precedent and the desired spacing does not usually occur. Permanent family planning is often jointly agreed upon after a woman has two

children. The preference for a male child is still there and is one of the only cases that a woman's family will tell her to ignore the two-child norm and try for a male whether the woman wants to or not. Female feticide still exists but is not openly discussed. Age and education levels also correlate to increased knowledge about pregnancy and self-awareness when discussing the subject, but only on occasion do they lead to autonomy in decision-making. Family conflict is seen as a barrier to PNC access because the family has to be functional enough to save money and put in the travel time and interest to make sure the pregnant woman receives care. Most women who live in joint or extended families follow the established hierarchy where decision-making rests with the in-laws and husband, whereas women who live in nuclear families were more likely to have joint discussions, even if their husband made the eventual decision. The village partnership with CRHP and the presence of the VHW are social factors that increase healthcare utilization whereas religion, despite stereotypes, does not appear to significantly affect prenatal care utilization. Income was noted by all women to affect prenatal care, as a woman in poverty would not be able to afford appointments at the private hospital and she would either use the government hospital or go without care. However, most families noted that they saved money for hospital visits or borrowed money from relatives and banks to afford PNC and delivery at the private hospital, going into debt rather than sacrificing quality of care. Money also affected a woman's mental health during pregnancy and all women saw poverty as having a negative impact on the family dynamic, the baby's development, and the woman's happiness.

The findings of this research indicate an optimistic yet complex picture of pregnancy and childbirth in the project villages of Jamkhed. Women are receiving the prenatal care that they need, but they lack the education and agency within their families to make decisions about family planning. Family structures are the most important influence on a woman's practices

during pregnancy – the same family structure that can isolate a woman when she gets married also supports her during the transition to motherhood. Capitalizing on the positive elements of this social support would be crucial for programs seeking to further improve gender equality and birth outcomes. More women are finishing their secondary education but there is still a large number of women who are not. Higher education can give a woman more opportunity for social and financial autonomy and knowledge when she marries and has children but should not be seen as a panacea for gender equality. Encouraging families to use some form of contraception to delay initial childbirth for 1 to 2 years could help decrease the rates of low birth weight and anemia by allowing women to be more physically ready to have children.

Interview Limitations

Interviewing women in their homes was convenient for their participation and for their comfort, but it did come with certain co-factors that must be considered with evaluating the data. Because of the presence of the family in the home and their natural curiosity about the questionnaire, the majority of women were interviewed with at least one other female relative or neighbor present. To gain permission for a daughter or daughter-in-law to talk with the research team, the approval and presence of an older relative was sometimes unavoidable. The purpose of the research was to delve into the mother's perspective on childbearing, but the opinions of older female relatives were oftentimes given unsolicited, and potentially affected the responses of the young mothers. The hierarchical family structure also could have made some of the women uncomfortable answering as honestly as they would have liked, or it would have made them defer to the opinion of an older woman when being asked questions of opinion. The village health worker was also present for all the interviews conducted in her respective village. She is crucial to forming the connection between families and the research team and her familiarity is

important in obtaining their consent to be interviewed. However, she also interjected her opinion, although this was rare because the research team was comfortable explaining to her that the purpose was to seek the mother's knowledge, whereas this distinction was lost on family members. Young mothers would oftentimes look to either their older relative or to the VHW for what they thought would be the "correct" answer, especially towards beginning of the questionnaire as they adjusted to the style of the interview. Outside interjection could often be limited after the translator explained that the research team only wanted to hear from the mother herself, but it was clear from some women's behavior that they were cognizant of the presence of their family while they were being interviewed.

Another potential limitation is the "otherness" of the researcher, which could have affected the comfort of the participants and the kinds of answers given. A foreign appearance automatically increases outside interest in the interview process, which led to more people wanting to sit and listen. The purpose of the project was explained to each participant and the fact that the researcher was only a student seeking to learn from the woman was emphasized. When someone comes around asking about pregnancy and social structures, many community members will assume that they are a social worker or otherwise collecting personal data, and this assumption can influence their responses. For example, many women hesitated before telling the research team their age when they were married. Marriage under the age of eighteen for women is illegal and although the researcher's lack of connection with social work or the government was stressed, there was still a reluctance to reveal personal data that may be legally or ethically frowned upon. The topic of specifically-female feticide did not come up in interviews either for the same reasons. The fact that women and their families may not have believed that the research team was not collecting household data could mean that some of the answers given were in

accordance with what Indian law says, or with what they thought that the research team wanted to hear rather than the whole truth. Before the interview process began, the questionnaires were structured to remove loaded statements or leading questions so as to facilitate maximum narrative freedom. The research team also made sure that before the interviews, most women appeared interested, if not excited, to participate, which would maximize the likelihood of enthusiastic engagement and honest responses. However, the research team cannot discount the influence of their status as outsiders and their “otherness” on the responses they received.

Finally, research done through translation often loses some of the original meaning and attitude of the response. There are certain nuances and subtlety in one’s original language that have a hard time translating in the same way that they were spoken. The translator for this project was extremely skilled in Marathi-English translation and its reverse. However, the research team was asking questions and translating on the spot during the interview, meaning that the translator had to listen to long strings of Marathi and also had to differentiate between respondents if another person had interjected. There is the possibility that certain responses, once translated, were phrased in a different way with a different tone or emphasis than how they were given. This is an unavoidable part of translation, and the research team made sure to go back through recordings and dissect longer Marathi dialogue segments to make sure that answers were recorded with maximum translational veracity.

Recommendations for Further Engagement

A future study could also examine the experiences of the 27% of women in India who are married under the age of 18¹⁷ and are likely to give birth before then as well - they may experience different pressures and complications than women who marry and give birth after the

¹⁷ Singh, 1

legal age. An important comparison could be made between the childbearing attitudes and practices of the women in the project villages versus those in the non-project villages; that study could provide a control group that could support the CRHP project village model in improving maternal health. One of the recommendations from this project's translator was the implementation of a women's group in the villages that would be specifically for daughters-in-law. This would be a peer support group for women who are often at the mercy of their family's decisions, and they could receive counseling and advice for pregnancy and childbirth as well as knowledge that could increase their own autonomy in their families. The group could also serve as a space to build social capital and support outside of their families. Eventually this program could build off of the knowledge gained in the Adolescent Girls Group, which needs continued reinforcement and support as women are subject to the new social pressures of marriage and motherhood.

Seeing how important the family is to prenatal care and birth outcomes, programs for new mothers will need to engage husbands and in-laws so as to address the social and economic position that daughters-in-law hold in the family structure and how their voices are needed in the community. The partnership between CRHP and the project villages has done excellent work for public health – with continued discussion and support for women, the villages can ensure that the fight for gender equality and health equity does not stagnate.

Bibliography

Primary Sources

Village Woman 1P, Personal Interview, Qualitative, 24 April 2019.
 Village Woman 2P, Personal Interview, Qualitative, 24 April 2019.
 Village Woman 3P, Personal Interview, Qualitative, 24 April 2019.
 Village Woman 4P, Personal Interview, Qualitative, 24 April 2019.
 Village Woman 5P, Personal Interview, Qualitative, 24 April 2019.
 Village Woman 6S, Personal Interview, Qualitative, 25 April 2019.
 Village Woman 7S, Personal Interview, Qualitative, 25 April 2019.
 Village Woman 8S, Personal Interview, Qualitative, 25 April 2019.
 Village Woman 9S, Personal Interview, Qualitative, 25 April 2019.
 Village Woman 10S, Personal Interview, Quantitative, 26 April 2019.
 Village Woman 11S, Personal Interview, Quantitative, 26 April 2019.
 Village Woman 12S, Personal Interview, Quantitative, 26 April 2019.
 Village Woman 13S, Personal Interview, Quantitative, 26 April 2019.
 Village Woman 14S, Personal Interview, Quantitative, 26 April 2019.
 Village Woman 15S, Personal Interview, Quantitative, 26 April 2019.
 Village Woman 16S, Personal Interview, Quantitative, 26 April 2019.
 Village Woman 17S, Personal Interview, Quantitative, 26 April 2019.
 Village Woman 18S, Personal Interview, Quantitative, 26 April 2019.
 Village Woman 19S, Personal Interview, Quantitative, 26 April 2019.
 Village Woman 20P, Personal Interview, Quantitative, 27 April 2019.
 Village Woman 21P, Personal Interview, Quantitative, 27 April 2019.
 Village Woman 22P, Personal Interview, Quantitative, 27 April 2019.
 Village Woman 23P, Personal Interview, Quantitative, 27 April 2019.
 Village Woman 24P, Personal Interview, Quantitative, 27 April 2019.
 Village Woman 25P, Personal Interview, Quantitative, 27 April 2019.
 Village Woman 26P, Personal Interview, Quantitative, 27 April 2019.
 Village Woman 27P, Personal Interview, Quantitative, 27 April 2019.
 Village Woman 28P, Personal Interview, Quantitative, 27 April 2019.
 Village Woman 29P, Personal Interview, Quantitative, 27 April 2019.
 Village Woman 30P, Personal Interview, Quantitative, 27 April 2019.
 Village Woman 31P, Personal Interview, Quantitative, 27 April 2019.

Secondary Sources

Arole, Mabelle, and Rajanikant Arole. *Jamkhed: A Comprehensive Rural Health Project*. Maharashtra, India: Comprehensive Rural Health Project, 2010.

Bagalkot, Naveen, Nervo Verdezoto, Michelle Lewis, Paula Griffiths, Deirdre Harrington, Nicola Mackintosh, and Judith Angelitta Noronha. "Towards Enhancing Everyday Pregnancy

Care." *Proceedings of the 9th International Conference on HCI IndiaHCI 2018 - IndiaHCI 18*, 2018. doi:10.1145/3297121.3297130.

CRHP- Comprehensive Rural Health Project. <http://jamkhed.org/>.

Curtis, Elizabeth, "Maternal Health in Villages of Northern Uttar Pradesh Assessing Options, Practices and Outcomes in Bahraich District" (2015). India: Public Health, Policy Advocacy, and Community. Paper 2.

<http://digitalcollections.sit.edu/inh/2>

El-Saharty, Sameh, Naoko Ohno, Intissar Sarker, Federica Secci, and Vikram Rajan. "India - Maternal and Reproductive Health at a Glance." *Health, Nutrition, and Population*. November 2014.

<https://openknowledge.worldbank.org/bitstream/handle/10986/21291/936030BRI0Box30ledge0Note0KBIndia.2.pdf?sequence=1&isAllowed=y>.

Government of India. "Janani Suraksha Yojana (JSY) Guidelines." Government of India. 2005.

Government of India. "Maternal Mortality Ratio." National Institution for Transforming India. March 2018. <http://niti.gov.in/content/maternal-mortality-ratio-mmr-100000-live-births>.

Mishra, Arima. "Putting the 'Social' Back In: Social Determinants of Health as a Methodological Lens." *The Social Determinants of Health in India*, 2017, 21-33. doi:10.1007/978-981-10-5999-5_2.

Mistry, Ritesh, Osman Galal, and Michael Lu. "'Women's Autonomy and Pregnancy Care in Rural India: A Contextual Analysis'." *Social Science & Medicine* 69, no. 6 (2009): 926-33. doi:10.1016/j.socscimed.2009.07.008.

Mohanty, Sanjay K., Basant Kumar Panda, Pijush Kanti Khan, and Priyamadhava Behera. "Out-of-pocket Expenditure and Correlates of Caesarean Births in Public and Private Health Centres in India." *Social Science & Medicine* 224 (2019): 45-57. doi:10.1016/j.socscimed.2019.01.048.

Nawab, Tabassum, Uzma Erum, Ali Amir, Najam Khalique, Mohammeda Ansari, and Ambreen Chauhan. "Disrespect and Abuse during Facility-based Childbirth and Its Sociodemographic Determinants – A Barrier to Healthcare Utilization in Rural Population." *Journal of Family Medicine and Primary Care* 8, no. 1 (2019): 239. doi:10.4103/jfmprc.jfmprc_247_18.

Perry, Henry B., and Jon Rohde. "The Jamkhed Comprehensive Rural Health Project and the Alma-Ata Vision of Primary Health Care." *American Journal of Public Health* 109, no. 5 (2019): 699-704. doi:10.2105/ajph.2019.304968.

Sanneving, Linda, Nadja Trygg, Deepak Saxena, Dileep Mavalankar, and Sarah Thomsen. "Inequity in India: The Case of Maternal and Reproductive Health." *Global Health Action* 6, no. 1 (2013): 19145. doi:10.3402/gha.v6i0.19145.

Singh, Abhishek, and Faujdar Ram. "Men's Involvement during Pregnancy and Childbirth: Evidence from Rural Ahmednagar, India." *Population Review* 48, no. 1 (2009). doi:10.1353/prv.0.0016.

Varghese, Rekha, and Manan Roy. "Coresidence with Mother-in-law and Maternal Anemia in Rural India." *Social Science & Medicine* 226 (April 2019): 37-46. doi:10.1016/j.socscimed.2019.02.027.

Wikan, Unni. "'Between Life and Death': Bhutanese Women's Knowledge, Attitudes, and Practices regarding Pregnancy and Delivery." *UNICEF Thimphu/University of Oslo*, 1991, 1-28.

The World Bank. "India State Briefs - Maharashtra." The World Bank. January 18, 2018. <https://www.worldbank.org/en/country/india/brief/india-states-briefs-maharashtra>.

World Health Organization. "WHO Recommendations on Maternal Health." May 2017.

Appendix 1: Qualitative Questionnaire (English)

I. Demographics (for everyone)

Name

Age

Village

Original Village

Husband's age

Education level

Caste [Religion]

What do you do for a living?

What does your husband do for a living?

What age did you get married?

How many children do you have?

How old are your children?

Girls and boys?

Who lives in your household?

Are you in a women's group or self-help group?

II. Qualitative Interviews

1. *When did you learn about pregnancy?*
2. *Can you describe your first pregnancy and delivery?*
3. *What knowledge did you receive before, during, and after your pregnancy?*
4. *Did you have any say in your pregnancy itself?*
5. *What are some common superstitions surrounding pregnancy?*
6. *What are some of the social factors that affected your pregnancy?*
7. *How did economic factors affect your pregnancy?*
8. *During your pregnancy, who helped you the most and how did they help you?*

Appendix II: Quantitative Questionnaire (English) and Quantitative Data

I. Demographics (for everyone)

Name

Age

Village

Original Village

Husband's age

Education level

Caste [Religion]

What do you do for a living?

What does your husband do for a living?

What age did you get married?

How many children do you have?

How old are your children?

Girls and Boys?

Who lives in your household?

Are you in a WG or SHG?

II. Multiple Choice Questions (N = 22)

Numbers in the N-column represent the number of respondents (Max. N=22) who chose the corresponding option. Certain multiple-choice options have been removed since administration of the questionnaire because they received 0 responses. Other options with no responses have been left for the purpose of comparison.

** = Multiple-Answer Question. N may not add up to 22.

#	Question	Options	N
1	Did you use any family planning methods before, between, or after your births? **	Condoms Contraceptive Pills IUD Sterilization (M/F Other method No family planning methods	1 0 0 0 3 18
2	What is the preferred timing of a woman's first pregnancy?	Within 1 year Between 1-2 years 2 years 2-3 years Other	2 6 11 1 2
3	What is the desired number of children?	1 2 2 or 3	0 18 2

		3 4 Other	2 0 0
4	What is the preferred space between births?	<1 year 1 year 2 years 3 years 4 years 5 years Other	0 1 6 8 5 2 0
5	How much house-work, farm-work, or factory-work did you do when you were pregnant?	The same amount as before More than before Less than before	7 1 14
6	How much did you eat when you were pregnant?	The same amount as before More than before Less than before	9 1 12
7	Who made the majority of decisions for you when you were pregnant?*	Myself My husband My mother-in-law My mother Another family member Husband-Wife-Joint	0 9 11 0 4 2
8	What decisions did you get to make when you were pregnant?*	When to have children FP Method AFTER Children Birth Location None Other	2 10 1 10 1
9	Who advised you when you were pregnant?*	Mother Mother-in-law Another female family member ANM Other	5 11 5 5 4
10	Who provided prenatal care (blood pressure, check-ups, iron tablets, and tetanus) to you?	ANM Hospital N/A (too early) No PNC	11 10 1 0
11	How satisfied are you with the prenatal care you received, if any?	1 (least satisfied) 2 3 4 5 (most satisfied)	0 0 1 1 20
12	Did you receive an antenatal checkup?	Yes, one I received 2 or more checkups I did not have an antenatal checkup N/A (too early)	1 19 0 2

13	What do you think is the reason a woman wouldn't get any prenatal care?	Can't afford it Family Conflict Religious reasons Too many responsibilities Lack of Facilities To far/no transportation Illiterate Superstition No barriers to receiving PNC	20 12 1 4 1 9 2 4 0
14	How would you rate your stress when you were pregnant?	1 (no stress) 2 3 4 5 (extremely stressed)	2 0 12 1 7
15	Who would you trust most during your pregnancies? **	Mother Mother-in-law Another female relative Husband Other	4 9 6 8 1
16	What do you wish you had more information about when you were pregnant? **	Food Work/Rest Personal hygiene Some part of PNC Hospital delivery Family planning methods Health Education for Family Mental health I had all the information I needed Other	9 4 1 5 6 1 2 1 2 1
17	If you have had multiple pregnancies, did your practices change? Circle all that apply	No Changes Yes, my prenatal care changed Yes, my birth location changed Yes, my diet changed Yes, my mood changed Yes, _____ changed N/A (First Pregnancy/Child)	2 3 1 4 3 0 12
18	Where did you give birth?	At my in-law's house At my parents' house At a private hospital At a government hospital Other N/A (first pregnancy)	0 1 12 3 0 6
19	If you went to a hospital or subcenter to deliver, how did you pay for the fees?	Free/Gov. Hospital My family paid for the fees Borrowed/Loans N/A (first pregnancy)	3 9 3 6

		N/A (delivered at home)	1
20	Who was with you when you gave birth? **	My husband	2
		My mother-in-law	2
		My mother	15
		Other Relative	8
		N/A (first pregnancy)	6
21	How did you get to the place where you gave birth?	Ambulance	1
		Bus or Rickshaw	8
		Private Motor vehicle	7
		Walked	0
		Other	0
		N/A (first pregnancy)	6
22	What did you do to relieve the pain during birth?	I was given pain medication	15
		I was massaged	0
		I prayed or performed another ritual	0
		Other	0
		I did not try to relieve the pain	1
		N/A (first pregnancy)	6
23	If you gave birth in a hospital, rate your comfort with your hospital experience?	1 (very uncomfortable)	0
		2	0
		3	0
		4	0
		5 (very comfortable)	14
		Non-hospital birth	1
		N/A (first pregnancy)	6
24	Were you treated for any complications when you were pregnant or while giving birth?	C-Section	4
		Anemia	11
		High blood pressure	7
		Delivery Complication	7
		Communicable Disease	1
		Premature/LBW	5
		No complication	6
25	Who was the most supportive person during your delivery?	My husband	2
		My mother-in-law	2
		My mother	5
		A female relative	6
		Other	1